



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/696,519	10/25/2000	Jeffrey H. Mumm	38,096	2591

7590 05/17/2002

BP Amoco Corporation
Attn: Docket Clerk, Law Department
200 E. Randolph Drive
P.O. Box 87703, Mail Code 1907A
Chicago, IL 60680-0703

EXAMINER

GOFF II, JOHN L

ART UNIT

PAPER NUMBER

1733

3

DATE MAILED: 05/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/696,519	MUMM ET AL.	
	Examiner	Art Unit	
	John L. Goff	1733	

-- Th MAILING DATE of this communication appears on th cover sheet with the correspondenc address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2000.
- 2a) ☐ This action is **FINAL**.
- 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 28-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☒ Interview Summary (PTO-413) Paper No(s). 2.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-27, drawn to a process for the manufacture of tufted carpets, classified in class 156, subclass 72.

II. Claims 28-33, drawn to tufted carpet, classified in class 428, subclass 85.

2. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by a materially different process such as one where the stitch bind composition does not contain a carrier component that is vaporized.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Mr. Stephen Hensley on 5/8/02 a provisional election was made with traverse to prosecute the invention of I, claims 1-27. Affirmation of this election must be made by applicant in replying to this Office action. Claims 28-33 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a

Art Unit: 1733

non-elected invention. Upon the indication of allowable subject matter, rejoinder will be considered.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Information Disclosure Statement

6. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 1733

8. Claims 1-3, 5, 6, 9, 14, 15, 18, and 23-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Smith et al (U.S. Patent 4,808,459).

Smith et al are directed to a method of manufacturing a carpet that has a carpet layer (a polypropylene woven primary backing and pile yarns extending from the backing), a tuft-lock coating (a polyvinylidene chloride copolymer latex composition having film-forming, thermoplastic properties), and a secondary backing (a polymer or copolymer that may have thermoplastic properties). Smith et al teach the carpet layer conveyed to a coating application station. A polyvinylidene latex emulsion is applied (sprayed) to the backing (stitched side) of the carpet. The carpet is advanced to an oven to dry the aqueous layer of the latex. The heated carpet backing then passes into a nip between two rolls. In the nip a secondary layer, such as thermoplastic foam, adheres to the carpet backing. The secondary layer is heated prior to entering the nip to activate its thermoplastic properties (Figure 3 and Column 5, lines 25-31 and 36-53). The latex coating composition contains about 30 to 60 percent by weight organic polymer, vinylidene chloride (Column 4, lines 39-46). Smith et al further teach the coating may be blended with an olefin-diene copolymer, such as styrene butadiene resin (Column 4, lines 46-48).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1733

10. Claims 4 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al as applied to claims 1-3, 5, 6, 9, 14, 15, 18, and 23-26 above, and further in view of Higgins et al (U.S. Patent 5,443,881).

Smith et al teach all of the limitations in claims 4 and 13 except for a teaching on the latex composition having a viscosity of about 0.5 to about 3000 cps and on applying an amount of latex composition effective to provide about 0.2 to about 3 ounces per square yard of the dry organic polymer component to the stitched side of the carpet. Higgins et al are directed to a pile carpet where a low viscosity latex adhesive emulsion, such as a carboxylated styrene butadiene, is applied to the stitched side of a carpet. Higgins et al teach the viscosity of the emulsion is about 200 centipoise, and the latex composition is applied at a wide range of levels between about 4 and 70 ounces per square yard and preferably at a level of about 6 dry ounces per square yard (Column 8, lines 14-27). Higgins et al teach the low viscosity emulsion can easily penetrate the primary backing.

Regarding claim 3, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a low viscosity latex composition as suggested by Higgins et al to manufacture the carpet of Smith et al so that the latex composition may easily penetrate the primary layer without external assistance.

Regarding claim 13, as noted above Higgins et al teach a wide range of amounts of latex composition applied to the primary backing. The lower end of the range suggested by Higgins et al, 4 osy, does not differ significantly from applicant's upper end, 3 osy. Further, the dry amount of organic polymer remaining after vaporization of the liquid component is a function of the amount of organic polymer present in the initial latex composition. It follows that a more

Art Unit: 1733

durable carpet would likely have a high amount of dry organic polymer. Therefore, it would have obvious to one of ordinary skill in the art at the time the invention was made to apply the latex composition in an amount sufficient to leave a dry organic component affording the carpet a desired durability.

11. Claims 6-8, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al as applied to claims 1-3, 5, 6, 9, 14, 15, 18, and 23-26 above, and further in view of Kato (U.S. Patent 4,836,871) and Bogdany (U.S. Patent 4,368,282).

Smith et al teach all of the limitations in claims 6-8, 16, and 17 except for a teaching on alternative methods used to apply the stitch bind composition and on the organic polymer component of the latex composition comprising a crosslinkable organic polymer. Kato is directed to using a resin aqueous emulsion or a heat crosslinkable resin aqueous emulsion to adhere a base fabric (tufted carpet) to a secondary surface (Column 4, lines 16-37 and 41-68). Kato teaches that the resin aqueous emulsion can be a number of copolymers including a styrene acrylate copolymer, such as styrene-methyl methacrylate copolymer (Column 6, lines 63-68 and Column 7, lines 1-4). Kato teaches that the alternative heat crosslinkable resin aqueous emulsion can be a blend of a copolymer aqueous emulsion and a crosslinking agent, such as an aminoplast (Column 8, lines 31-47). Kato suggests that the carpet formed when a crosslinkable resin aqueous emulsion is used rather than simply a resin aqueous emulsion has better elasticity useful in fitting irregularities in a surface on which the carpet is applied (Column 3, lines 51-57). Kato further teaches applying the aqueous emulsion (latex composition) as a spray, foam, or the like (Column 8, lines 13-15).

Regarding claims 6-8, Kato teaches applying the aqueous emulsion as a spray, foam, or the like. Further, Bogdany is cited as a teaching that shows it was known to apply carpet backing coatings as a froth (Column 2, lines 12-15). Thus, it would have been within the purview of one of ordinary skill in the art at the time the invention was made to apply the latex composition taught by Smith et al as a spray or foam as suggested by Kato or as a froth as shown by Bogdany as only the expected results would be achieved.

Regarding claims 16 and 17, it would have been readily appreciated by one of ordinary skill in the art at the time the invention was made to use the crosslinkable aqueous resin taught by Kato as the organic polymer component in the latex composition taught by Smith et al to manufacture a carpet with increased elastic properties.

12. Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al as applied to claims 1-3, 5, 6, 9, 14, 15, 18, and 23-26 above, and further in view of Kato, Bogdany, and Reith (U.S. Patent 4,844,765).

Smith et al teach all of the limitations in claims 19-21 except for a teaching on the organic polymer component of the latex composition comprising an ethylene acrylic acid copolymer, a styrene acrylate polymer, or a carboxylated styrene butadiene copolymer. As noted above, Kato is directed to using a resin aqueous emulsion or a heat crosslinkable resin aqueous emulsion to adhere a base fabric (tufted carpet) to a secondary surface (Column 4, lines 16-37 and 41-68). Kato teaches that the resin aqueous emulsion can be a number of copolymers including a styrene acrylate copolymer, such as styrene-methyl methacrylate copolymer (Column 6, lines 63-68 and Column 7, lines 1-4). Additionally, Bogdany teaches a number of well known copolymers used as an adhesive for carpet backing including carboxylated styrene butadiene

Art Unit: 1733

copolymers (Column 3, lines 1-6), and Reith teaches the use of many copolymers as a carpet backing coating such as ethylene acrylic acid copolymer (Column 8, lines 42-48). It would have been readily appreciated by one of ordinary skill in the art at the time the invention was made to use one of the organic polymers taught by Kato, Bogdany, or Reith as the organic polymer component in the latex composition taught by Smith et al as they were all well known adhesive materials in the carpet forming art at the time the invention was made.

13. Claims 10-12, 22, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al as applied to claims 1-3, 5, 6, 9, 14, 15, 18, and 23-26 above, and further in view of Gerry (U.S. Patent 5,714,224).

Smith et al teach all of the limitations in claims 10-12, 22, and 27 except for a teaching on the type of filaments that make up the face yarn of the carpet and the use of an additional backing in addition to the primary and secondary backings. Gerry is directed to the manufacture of a tufted carpet comprising a primary backing (such as woven polypropylene), a layer of latex (such as carboxylated styrene-butadiene) affixed to the primary backing, a moisture barrier layer (such as polyolefin) affixed to the latex, and a secondary layer (such as a polymer material) affixed to the barrier layer (Column 2, lines 21-32). Gerry teaches that the face yarn may comprise nylon filaments, polyester filaments, polypropylene filaments, etc. (Column 2, lines 45-49).

Regarding claims 10-12, one of ordinary skill in the art at the time the invention was made would have readily appreciated using face yarn filaments of nylon, polyester, polypropylene, etc. as taught by Gerry to make the tufted carpet of Smith et al as these were well known face yarn forming materials at the time the invention was made.

Art Unit: 1733

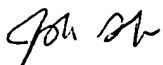
Regarding claims 22 and 27, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the additional backing taught by Gerry into the tufted carpet of Smith et al to provide the carpet with a moisture barrier layer.

Conclusion

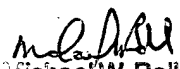
14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is **703-305-7481**. The examiner can normally be reached on M-Th (8 - 5) and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on 703-308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



John L. Goff
May 14, 2002



Michael W. Ball
Supervisory Patent Examiner
Technology Center 1700